

AMENDMENTS TO THE ABSTRACT:

Please amend the Abstract as follows:

~~Apparatus provided for the measurement of skeletal joint motion in a subject which comprises a passive motion device, an imaging device and a processing system incorporating a means for real time digital sampling of images of moving joints, means for recognising templates attributed to individual bones and tracking these automatically using cross correlation functions and means for geometric transformation of the positional data to graphically display their relative motion over time. Also provided is a method for the automated measurement of the relative motion of skeletal structures in vivo using such apparatus and a method for the diagnosis of a pseudoarthrosis in a subject which comprises the use of such apparatus.~~ Methods and apparatus for measuring the movement of bones during joint motion in a subject using a motion table, an imaging device, and software program for tracking, calculating and graphing the results of the motion study. The apparatus is a motion table used to control the movement of the subject while an imaging device captures images during that movement. The images are analyzed using a computer software program that tracks the individual bones that make up the joint, calculates their relative movements, and graphically displays the results as a function of time.